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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,400	01/03/2001	Michael Mesh	S0489/7008 GSE	1928
23338	7590	10/22/2004	EXAMINER	
DENNISON, SCHULTZ, DOUGHERTY & MACDONALD 1727 KING STREET SUITE 105 ALEXANDRIA, VA 22314			ELALLAM, AHMED	
			ART UNIT	PAPER NUMBER
			2662	

DATE MAILED: 10/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/753,400

Applicant(s)

MESH ET AL.

Examiner

AHMED ELALLAM

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 April 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 11 is objected to because of the following informalities:

In claim 11, Line 5, the term "a" in the phrase "a bit stream" should be changed to "said" or "the" since it has an antecedent basis.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: adding a header and checksum (or FSC...) after the segmentation of the bit stream.

More specifically, claims 1 and 12 recite: "segmenting an incoming bit stream; adding a tag to a header of each segment..". From the claim recitation, it is not clear from where the header comes in place within the segment. Such lack of step(s) amounts to claims 1 and 12 being unclear and confusing.

Claims 2-11, 13-16 depends from respective rejected claims 1 and 12, thus they are subject to the same rejection.

It is with the same concern to add to the above remarks that the specification also is incomplete of disclosing the omitted step(s) between segmenting the bit stream and the header within segments.

3. Regarding claims 2 and 11 and 13, the phrase "HDLC- like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by " HDLC- like "), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1, 3, 4, 7, 9 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Ravikanth, US (6,331,978).

Regarding claims 1 and 8, Ravikanth discloses a method for data transmission over an optical fiber, the method comprising:

adding a label to the front of a datagram, see column 3, lines 30-35. (Claimed adding a tag to a header of each segment, each tag including data identifying a route between a source and destination). (Examiner interpreted the label as the claimed tag, and the datagram as the segment, and the end of datagram as the claimed header of segment). (Examiner also interpreted the presence of datagram is preceded by a form of segmentation of a data stream);

Ravkanh also discloses that packet over SONET/SDH uses PPP encapsulation, see column 5, lines 14-17, (Examiner interpreted the packet as been the datagram with the label (claimed segment with the tag)), see column 5, lines 34-38. (Claimed encapsulating tagged segment into a point-point protocol (PPP) packet in a frame); Ravkanh further discloses that SONET is used for data transmission over optical fiber, see column 1, lines 19-22. (Claimed mapping the encapsulated packet into a transmission frame for transmission over an optical fiber).

Regarding claims 3 and 4, Ravikanth discloses using packet over SONET/SDH, see column 5, lines 14-17. (Claimed transmission frame is a Packet over SONET frame as in claim3; and the transmission frame is a Packet over SDH frame , as in claim 4).

Regarding claim 7, Ravikanth discloses scrambling the payload of the packet, see column 5, lines 39-48. (Claimed scrambling the encapsulated packet before the step of mapping into a transmission frame).

Regarding claim 9, claim 9 is rejected by way of symmetry since it has all the reverse steps of base claim 1.

Regarding claim 10, claim 10 has the step of de-scrambling, since the payload was scrambled (as indicated in claim 7), the reverse step of de-scrambling is necessary to recreate the original datagram.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 5, 6, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ravikanth US (6,331,978) in view of Ndousse et al, PPP Extensions for IP/PPP-HDLC over SONET-SDH/WDM, IEEE, 1999, pages 575-580.

Regarding claims 2 and 13, Ravikanth as indicated above discloses encapsulating the labeled datagram using a PPP protocol framing.

Ravikanth fails short of specifying that the PPP is a High bit rate Digital Link Control (HDLC). (Claimed tagged segment is encapsulated into PPP packet in a high bit rate Digital Link Control (HDLC)-like frame).

However, Ndousse discloses that encapsulating datagram into a PPP-HDLC frames is a preferred encapsulation mechanism. See left column, page 576, and first paragraph.

Therefore, it would have been obvious to an ordinary person of skill in the art, to use the PPP-HDLC encapsulation taught by Ndousse instead of the PPP of Ravikanth

so that Ravikanth's system can be used for 802.3 LAN traffic (Ndousse). The advantage would be the ability to apply Ravikanth's encapsulation to Ethernet traffic for transport over fiber optics using SONET/SDH standards (Ndousse).

Regarding claims 5 and 6, Ravikanth discloses using packet over SONET/SDH, see column 5, lines 14-17. (Claimed transmission frame is a Packet over SONET frame as in claim 5; and the transmission frame is a Packet over SDH frame , as in claim 6).

Regarding claim 11, as discussed above with reference to dependent claims 2 and 5, Ravikanth in view Ndousse discloses encapsulating a labeled datagram in a PPP-(HDLC)-like using packet over SONET frames. However, Ravikanth in view Ndousse do not explicitly discloses the steps of de-packing, de-capsulating, stripping and assembling the datagram (segment). However Ravikanth in view Ndousse would naturally recognize the need to do these steps since they are inherently the reverse steps implemented on the datagram. Such steps are needed to recover the original data stream.

6. Claim 12, 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ravikanth, US (6,331,978).

Regarding claim 12, claim 12 is an apparatus claim having an engine comprising modules that implement the steps claim 1. Ravikanth while disclosing the functions of the modules of claim 12, it does not specify the implementation modules. However, it would have been obvious to a person of ordinary skill in the art to provides the modules

necessary to implement the method steps of Ravikanth. A person of skill in the art would be motivated so that the method of Ravikanth can be put to practice.

Regarding claims 14 and 15, Ravikanth discloses using packet over SONET/SDH, see column 5, lines 14-17. (Claimed transmission frame is a Packet over SONET/SDH frame.

Regarding claim 16, Ravikanth disclose adding a label to the front of a datagram, wherein the label is MPLS label. See column 3, lines 30-35. (Claimed add MPLS tag to a header of each segment).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Ku et al, US 2002/0085567 A1; Goodman et al, US (6,636,529); Chuah, US (6,654,808); Bromley et al, US (6,658,021); Mo et al, US (6,693,909); Jha, US (6,778,561); Jouppi et al, US (6,795,435).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AHMED ELALLAM whose telephone number is (571) 272-3097. The examiner can normally be reached on 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kizou Hassan can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AHMED ELALLAM
Examiner
Art Unit 2662
October 20, 2004



JOHN PEZZLO
PRIMARY EXAMINER